NORTHEASTERN FOREST PEST REPORTER

United States Department of Agriculture
Forest Service Region Seven

6816 Market St., Upper Darby, Pa.

Pest Control Zone Offices
Amherst, Mass.
Harrisonburg, Va.

NUMBER 1 July, 1962

FOREWORD

This is Region Seven's first issue of the Northeastern Forest Pest Reporter. It is a compilation of information contributed by many agencies and individuals throughout the Region. Its purpose is to keep those interested in forest insects and diseases informed of the current situation. Comments and suggestions regarding it will be most welcome. Furture issues will be patterned after the expressed desires of the majority of our contributors and readers.

GENERAL STATEMENT OF CONDITIONS

Reports received from Maine to Virginia express concern over a long list of forest pests. Currently the hardwood defoliators are most conspicuous, with the loopers, cankerworms, webworms and others competing for the spotlight with the gypsy moth. Conifers are being beset by such insects as budworms, weevil, sawflies, tip moths, aphids, scales, beetles and grubs. Less conspicuous but equally important are the forest diseases that are plaguing the region; - root rots, heart rots, diebacks, declines, canker diseases, wilts, blights and rusts. Animals ranging from birds to mice are also included in the reports. Except in a general way, no attempt has been made to report these pests in order of importance, it being realized that "importance" is largely a matter of "whose ox is being gored".

AGRICULTURE – MCELWEE, PHI..., PA.

STATUS OF FOREST INSECTS

SPRUCE BUDWORM (Choristoneura fumiferana)

Maine — Early larval surveys indicate heavy infestations in the Squapan Lake area southeast of Ashland, Maine. Staminate flowers of balsam fir, a most desirable food supply for budworm larvae, are heavy this year. No spraying to control budworm was done this year but there is a possibility that it may be necessary in 1963.

GYPSY MOTH (Porthetria dispar)

Gypsy moth was the principal defoliator of hardwoods this year. To control it nearly a quarter of a million acres were sprayed in May and June by various States and the Agricultural Research Service.

Maine — Over 41,000 acres were sprayed in southern Maine including 8,700 acres on Mt. Desert Island.

New Hampshire — Heavy gypsy moth defoliation was reported around Keene and scattered light feeding elsewhere in New Hampshire. Populations on Rattlesnake Island, Lake Winnipesaukee have decreased from last year.

Vermont — Total gypsy moth defoliation in Vermont will probably not exceed 5,000 acres this year. Natural biotic control factors (insect parasites and predators, larval starvation, and the polyhedral virus disease) have brought about a reduction in gypsy moth defoliation in the Lake Dunmore area. These natural control factors occur in areas where gypsy moth activity builds up to a peak over several years until finally they bring about a significant decrease in the moth populations. However, in the southern part of Vermont, aerial surveys revealed that defoliation is definitely on the increase. High winds, after egg hatch, may have contributed to the dispersal of larvae in this part of the State as well as to adjacent parts of New Hampshire, New York and Massachusetts.

Massachusetts — About 60,000 acres were sprayed for control of gypsy moth in the four western counties of Massachusetts with large areas of additional defoliation being noted over the general area. An additional 1,500 acres were sprayed on Cape Cod.

Connecticut	Heavy gypsy moth defoliation was reported in the northwestern corner of Connecticut.
New York	Aerial spraying for control of gypsy moth in New York totalled well over 100,000 acres. In several of the same areas, the cankerworms, linden looper and other hardwood defoliators have outranked the gypsy moth in competition for the available food supply.
Pennsylvania	While no definite report of gypsy moth was received from Pennsylvania, it is believed that a considerable acreage was treated.

FOREST TENT CATERPILLAR (Malacosoma disstria)

New Hampshire, Vermont, New York, Pennsylvania	Light feeding was noted in several areas of Vermont, New York and New Hampshire. In Pennsylvania the population was reduced and only light infestations were reported from South Central counties. In this area Sarcophaga aldrichi, a predator, should keep the population in check until next year.

FALL WEBWORM (Hyphantria cunea)

Virginia	A recurring infestation of fall webworm in Shenandoah National Park and along the Blue Ridge Parkway made it necessary to spray several hundred acres by helicopter along the drives to reduce the defoliation and unsightly webs caused by this pest.

RED PINE SCALE (Matusucoccus resinosae)

Connecticut, New York, New Jersey	This serious introduced pest is continuing to kill red pine within a fifty mile radius of New York City. No effective control is known but New Jersey has exerted diligent efforts to eliminate it from its borders by cutting infested stands.

FALL CANKERWORM (Alsophila pometaria)

Massachusetts, New York, Pennsylvania, Virginia	The fall cankerworm has caused heavy defoliation in south-eastern and western Massachusetts. A total of 2500 acres was sprayed for control of this insect in the state. Cankerworms are present in several areas of New York and particularly Rockland and Orange Counties, where 75-100% defoliation of oak on several thousand acres has occurred. Defoliation by the cankerworm and other geometrids (spring cankerworm, linden looper, etc.), is light to moderate in much of Virginia and

Pennsylvania. An estimated 100 acres was heavily defoliated by fall cankerworm on the Jefferson National Forest north of Roanoke.

LINDEN LOOPER (Erannis tiliaria)

New York — In northern Hamilton and southern St. Lawrence County, moderate to heavy defoliation of several hardwood species has occurred. In one area 100% defoliation of beech was reported. Other counties where defoliation occurred are Essex, Franklin and Fulton Counties. In some areas of expected heavy gypsy moth activity linden looper was the defoliator.

New Hampshire, Vermont — Linden Looper is generally common throughout these states with the heaviest concentration in the Connecticut Valley in New Hampshire.

Pennsylvania — Moderate to heavy defoliation was reported statewide. By May defoliation was about over in the southern counties but continuing in the northern counties.

VIRGINIA PINE SAWFLY (Neodiprion pratti pratti)

Maryland, Virginia, Kentucky — Defoliation damage to Virginia and shortleaf pine has decreased, but infestation limits have not been altered. A summary report of aerial survey results should be forthcoming shortly from the Beltsville Forest Insect Laboratory. Heavy defoliation on shortleaf and Virginia pine over an extensive area in northeastern Kentucky was reported as possibly caused by this sawfly.

EUROPEAN PINE SAWFLY (Neodiprion sertifer)

New York — Heavy infestations of red and Scotch pine plantations in Herkimer County, New York, were noted.

Pennsylvania — The European pine sawfly is causing damage to Virginia pine in southern counties of Pennsylvania.

RED-HEADED PINE SAWFLY (Neodiprion lecontei)

Maryland — This sawfly was reported from Dorchester, Caroline, Worchester and Wicomico Counties. Moderate infestation in loblolly pine plantations along the Eastern Shore were to be sprayed the last week in June.

YELLOW-HEADED SPRUCE SAWFLY (Pikonema alaskensis)

New York — Spraying to control this insect on plantations in St. Lawrence County was initiated. Some mortality resulted from earlier attacks.

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana)

Pennsylvania — Damage was moderate on Scotch, Austrian and red pine plantations in Berks and Cumberland Counties.

Maryland — Tip moth was noted on pine in all counties on the Eastern Shore.

Virginia — Severe infestation was found on 6 - 7 year old loblolly pine in Norfolk County. Loblolly pine plantations were damaged in Spotsylvania, Pittsylvania, Halifax and Amelia Counties. Tip moth was reported on Scotch pine in Fairfax County.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana)

Pennsylvania — Damage reported to be severe in Westmoreland County on red pine and in Cumberland County on Austrian, red and Scotch pine. Because of this pest, pine planting is discouraged in all southern counties of Pennsylvania.

WHITE PINE WEEVIL (Pissodes strobi)

Eastern Region — This insect is one of the most serious and widely distributed pests in the region. To assure a high grade log from white pine, spraying terminal shoots with an insecticide in spring or fall has proved to be an effective means of avoiding weevil damage. Several states and the National Forests are using this means of combating the weevil.

PALES WEEVIL (Hylobius pales)

Pennsylvania — Weevil attack caused the death of numerous natural pine seedlings in southern counties and in the Brookville area, where considerable damage was noted in Christmas tree plantations.

Maryland — Newly planted loblolly pine on Pocomoke State Forest was attacked, whereas natural reproduction was affected only slightly.

Virginia — Severe kill occurred on 70 acres of white pine in Floyd County.

BALSAM WOOLLY APHID (Adelges piceae)

Maine — Excessive cold (minus 30° - 40°F.) and little snow cover has resulted in winter mortality of the aphid around Pleasand Pond, Caratunk, Maine. This mortality is not expected to be significant on aphid populations on a long term basis. An import, Laricobius erichsonii, a predaceous beetle on the aphid, has been established in the townships of Caratunk, Fayette, Woolwich and Hartford. Two additional releases of Laricobius were made in southwestern Maine on the White Mountain National Forest. The effect of the predator on the host insect still remains to be determined.

New Hampshire, Vermont — General areas of aphid infestation have not changed greatly, except in small isolated stands of fir where the aphid has decreased as the result of death or cutting of the infested fir. Northfield Gulf and Peacham Bog, Vermont, are excellent areas for the establishment of Laricobius because of heavy aphid infestation. Heavy winter mortality of the aphid at Cabot, Vermont, reduced the possibility of Laricobius becoming established in this release area.

PINE LEAF APHID (Pineus pinifoliae)

Maine — Locally, last year's damage by the aphid is common in western Maine, but it is far more serious and extensive in eastern Maine. Experimental control spraying by air using lindane on one area and DDT on the other were undertaken on June 1.

New Hampshire — Damage to white pine is quite common in all sections of New Hampshire, where white pine and red spruce grow in close proximity to one another.

Vermont — Damage to white pine is prominent but scattered throughout the state. Aphid populations seem to have decreased in 1962 from 1961.

New York — Damage to white pine is particularly apparent in Essex County (Keene - Saranac Lake Area) where some mortality is expected. In Hamilton and Fulton counties damage from last year's aphid feeding is also quite apparent, although individual areas of infestation are widely scattered.

ARBORVITAE LEAF MINER (Argyresthia thuiella and others)

Maine, New Hampshire, Vermont, Massachusetts, New York — Severe damage is in evidence across northern New England and New York State. More than one species of leaf miner seems to be causing damage. The damage of the leaf miner, coupled with winter injury of partially damaged tips from last year's feeding resulted in much browning of eastern white cedar.

PINE SPITTLEBUG (Aphrophora parallela)

New York, Virginia — This insect has been reported as continuing to cause damage to white and Scotch pine plantations in Chenango County, New York, and as being observed on pines in Highland, Rockingham and Augusta Counties, Virginia.

RED TURPENTINE BEETLE (Dendroctonus valens)

Pennsylvania — This beetle was found attacking white pine weakened by Fomes annosus in Franklin County, Pennsylvania.

Virginia — Turpentine beetles were active and reported from most districts in Virginia.

SOUTHERN PINE BEETLE (Dendroctonus frontalis)

Virginia — This chronic pest was reported from the Central Piedmont for the first time in several years. Reports from the Eastern Shore (Accomac and Northampton Counties) and Halifax County, indicate that new attacks were evident in late May.

IPS BEETLES (Ips pini)

Virginia — Current ips activity was noted in Fairfax County, Virginia.

WHITE GRUBS (Phyllophaga spp.)

Vermont, New York — White grubs have become a very important problem in the Vermont State Forest Nursery at Essex Junction where control operations are being carried out using a 5% chlordane dust applied at the rate of 5 pounds per acre. In New York State (St. Lawrence County), 80% mortality of red and white pine planted in 1961 was attributed to white grubs.

STATUS OF FOREST DISEASES

HARDWOODS: DECLINES AND DIEBACKS

ASH DIEBACK (cause unknown) [1]

New York	The incidence of this disease continues at a high level. Reports from western New York indicate that spread is continuing and that local infection is intensifying.
Pennsylvania	Reported as occurring widely in Somerset, McKean, Warren, Forest and Elk Counties.

CHERRY DIEBACK (cause unknown)

Pennsylvania	This dieback condition of black cherry is causing a great deal of concern in McKean and Potter Counties. More information on this problem should be available for the next issue. In the meantime, a meeting of State, Private and Federal personnel has been scheduled to observe and discuss cherry dieback.

MAPLE DECLINE (cause unknown)

New Hampshire, Vermont	The dieback and decline of roadside sugar maple is continuing. In comparison, the incidence of the disease in forest stands and sugar bushes is relatively low.

OAK DECLINE (complex of causes)

Pennsylvania, Virginia, West Virginia	This condition which has abated somewhat in recent years, was most severe during the mid 1950's. Research conducted at the Northeastern Forest Experiment Station has implicated drought, defoliation, root rot (Armillaria mellea) and attack by Agrilus bilineatus (two-lined chestnut borer) as the contributing factors to the disease complex. Oak decline was reported as static from observations on FPC observation plots in Warren County, Pennsylvania.

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[1] Cause, when known, is listed after each disease as a reference aid but does not infer that the pathogen is the disease.

HARDWOODS: CANKERS

BEECH SCALE-NECTRIA (Nectria coccinea)

Maine, New Hampshire, Vermont	No abatement of this problem is indicated by current reports. Local scale infestations vary, with some reports of heavy concentrations on the western slopes of the White Mountain National Forest. Both the perfect and imperfect stages of the fungus were found in northern New Hampshire. Heavily damaged old growth beech on the White Mountain National Forest has been salvaged where possible. The disease is not severe in young thrifty stands.

MAPLE CANKER (cause unknown)

Pennsylvania	Heavy stem cankering of sugar maple, and to a lesser degree, red maple, was first recognized in Somerset County but is now known to occur throughout the Allegheny Plateau in Pennsylvania. State sponsored research on this disease is being continued at the Pennsylvania State University.

HARDWOODS: WILTS

OAK WILT (Ceratocystis fagacearum)

Pennsylvania, Maryland, Virginia, West Virginia, Kentucky	State control organizations have initiated their annual survey and control activities. The first report of the season from West Virginia listed 224 trees processed as of June 29. Interim progress reports from the other states have not been received as yet.

DUTCH ELM DISEASE (Ceratocystis ulmi)

Virginia, West Virginia	This disease is well established throughout the Eastern Region. Reports of active wilt this season have been received from Virginia, (Albemarle, Augusta and Rockingham Counties) and West Virginia, (Randolph and Hampshire Counties).

HARDWOODS: MISCELLANEOUS

Eastern Region	Anthracnose, a foliage disease commonly affecting the oaks and sycamore, is most severe during excessively wet springs. Although affected trees are unsightly, it is not considered critical in the forest. Reports to date indicate light infection (West Virginia, Virginia, Pennsylvania).

West Virginia, Kentucky — Yellow poplar canker, observed in Hardy County, West Virginia, and in McCreary County, Kentucky. Symptoms and possible fungus cause resemble those reported by Dochinger and Seliskar (1).

Maryland — Chestnut oak twig dieback, associated with Diplodia sp. was observed in Carroll County.

New York — Hypoxylon canker of poplar, heavy infection reported from the central area of New York, (Cortland and Norwich Districts).

CONIFERS: ROOT DISEASES

ROOT ROT (Fomes annosus)

Eastern Region — Results of the regional survey conducted by the Northeastern Forest Experiment Station showed that 23 of 81 red pine plots had F. annosus damage, and the overall damage was less than one percent. The strongest correlation was shown in damage increasing with time since first thinning. In addition, the factors of aspect (flat) and site moisture (dry) were significant in having greater damage.

Maryland — Reports that this is their most important problem in thinned red loblolly pine stands.

West Virginia — Reports considerable damage to natural white pine stands in southeastern areas.

Kentucky — F. annosus detected, presumably a first report for the state, in two, thinned plantations (shortleaf pine near Morehead; pitch pine near Pineville) and in one partially-cut natural stand of shortleaf in the vicinity of Greenwood, Kentucky.

LITTLELEAF (Phytophthora cinnamomi)

Virginia — Reports apparent increase of littleleaf on shortleaf pine in central Virginia (Fluvanna and Louisa Counties).

CONIFERS: STEM RUSTS

WHITE PINE BLISTER RUST (Cronartium ribicola)

Maine, New Hampshire, Vermont, Massachusetts, New York	The aecial stage was quite prevalent throughout New York and New England this spring. Reports of heavy infection on white pine reproduction were received from Jefferson and Lewis Counties, New York. A total of 867,758 acres of control area are scheduled for Ribes surveys in Maine, New Hampshire, Vermont, and Massachusetts, while 246,732 acres are scheduled for Ribes eradication in New York. Periodic examinations of cankers treated with antibiotics dating back to 1958 are being continued. Tests showing promise are being reapplied on a limited scale. Foliar applications of antibiotics on eastern white pine in Region 7 have not been successful to date.
Pennsylvania	With the exception of Somerset County, Ribes infection is light in the state; occasional new cankers are found but these usually do not involve commercial damage.
Virginia	Light infection was observed on Ribes in the Shenandoah National Park.

FUSIFORM RUST (Cronartium fusiforme)

Maryland	Reported as widespread on loblolly pine.
Virginia	Same host involved in observations from Nelson County.

WOODGATE RUST (Peridermium harknessii)

Vermont, New York	Increasing reports of this disease of hard pines create the impression of probable severity in the future. Another new location has been detected in New York. It has also been found on Scotch pine in southern Vermont.

FALSE BLISTER RUST CANKER (cause unknown)

New York	This disease is still causing white pine mortality in the Tug Hill area of the state.

CONIFERS: FOLIAGE DISEASES

NEEDLE CAST

Pennsylvania	Pitch pine needle cast caused by Hypoderma lethale reported as severe in Cumberland, Pike and Monroe Counties. Also, Christmas tree plantings seriously affected in Barnette Township Forest County.
West Virginia	Bifusella linearis was frequently observed on the dying foliage of understory (sapling) white pine in Hardy County.
Virginia	Reports of widespread needle cast on loblolly pine in Princess Ann, Norfolk, Nansemond and Isle of Wight Counties. Pitch pine needle cast common in Augusta, Bath and Highland Counties.
Kentucky	Reports heavy infection in pole-sized, natural stand of shortleaf pine in Pulaski County.

NEEDLE RUSTS (Coleosporium spp.)

New York	The Herkimer district reports a severe needle rust infection of red pine.
Maryland	C. asterum found in three-year-old loblolly pine plantation in Washington County.

CONIFERS: MISCELLANEOUS

New York	Mortality of young white pine (cause unknown) due to constriction of the stems is increasing in northeastern New York.
Massachusetts, Pennsylvania	Tip blight of red pine associated with Diplodia pinae was noted in eastern sections of the state. Reported as serious on 25-30 year-old Scotch pine in Cambria, Indiana and Westmoreland Counties.
New Hampshire	Excessive budding or brooming of red pine (cause unknown) has been observed in several areas of the state, both in planted and natural stands. Winter browning of red spruce quite severe throughout the state.
Maine	The decline of white pine in the Freeport area continues to increase, while it is decreasing in the Wiscasset area. Winter browning of red spruce is quite severe at elevations over 1000 feet in western sections.

OTHER PESTS

MOUND BUILDING ANTS (Formica excecitoides)

Pennsylvania — These ants are widely distributed in the Ridgway Range District of the Allegheny National Forest. A heavy infestation near Brookville on the Maple Creek tract is reported.

PINE GROSBEAK

Region-7 — Along the migration flyway, serious damage is inflicted upon terminal and lateral buds of various conifers by this bird. Damage to white and Scotch pine and Norway spruce is serious and appears to be on the increase.

PORCUPINE

Rhode Island — Stem girdling of red pine on the Scituate Reservoir has been reported for the first time in the state.

FIELD MICE

Virginia — Some injury was noted in loblolly pine plantations, but population in general is on the decline.

CICADA

Region-7 — Periodical cicada (Magicicada septendecim) damage is now in evidence over much of the Region.

Literature Cited

1. DOCHINGER, L. S., and C. E. SELISKAR. 1962. Fusarium canker found on yellow poplar. Journal of Forestry-60: 331-333.

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